

Tangential Tool Chip Breaker, version 1.0

By R. G. Sparber

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This article presents an experimental chip breaker for a Diamond[®] Tool Holder. A video of just the cutter making a 50 thou depth of cut (DOC) can be seen at

<http://youtu.be/rTbWI5K1750>

and a similar video showing the same DOC and feed rate but with the chip breaker attached can be seen at

<http://youtu.be/n2u-Nzdb76g>



Here is a close up view of the chip breaker. It does not modify the cutter but rather fits around the back side and over the top.

The sheet metal forms a pocket which catches most of the swarf. The swarf crowds into the pocket and break off as can be seen in the second video.

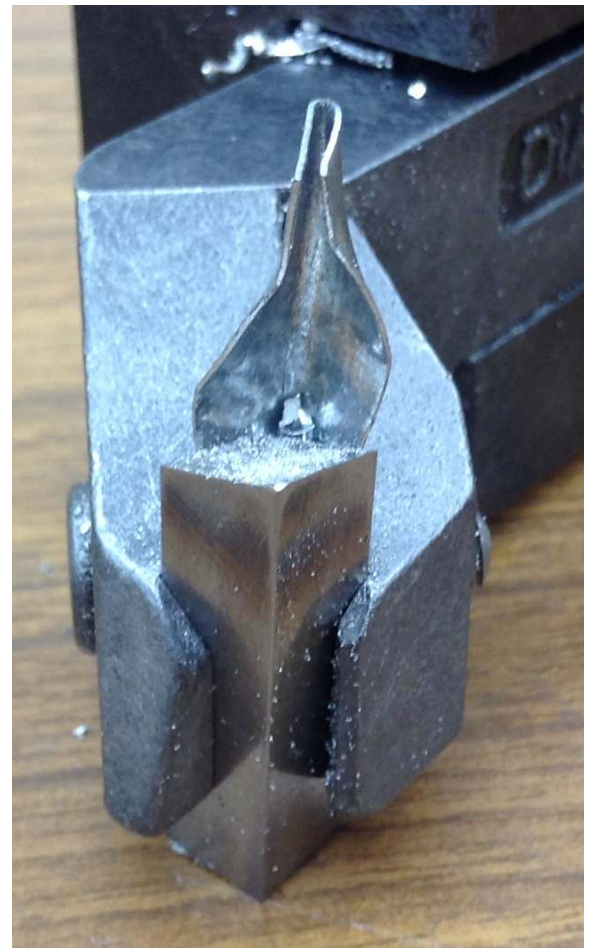
I would have liked to use heavier gage sheet metal but there isn't that much room

between cutter and holder.

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The chip breaker does not extend all the way to the sides of the cutter. This keeps it out of the way of the workpiece. Unfortunately, it also permits some swarf to sneak pass. Yet eventually the swarf shifts and goes back into the pocket where it quickly breaks apart.



I welcome your comments and questions.

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